Table of the experimental Effects common to the Electricities derived from different Sources.[1]

		l	ignetic jection.	bn"rt i §	fcfl .	gli	I.I	bfl ^
	£	ss	i	^	u ~"	< X	Q ^
i. Voltaic electricity	x	X	x ! x	x	x	X	X
2. Common electricity	X	X	X x	X	X	X	X
3. Magneto-electricity	X	X	x i x	X	X	X	
4. Thermo-electricity	X	X	+ I	.!	+		
5. Animal electricity .	X	X	x| '	+	X		

§ 2. *Relation by Measure of Common and Voltaic Electricity* [2]

97. Believing the point of identity to be satisfactorily established, I next endeavoured to obtain a common measure, or a known relation as to quantity, of the electricity excited by a machine, and that from a voltaic pile; for the purpose not only of confirming their identity (114), but also of demonstrating certain general principles (102, 113, etc.), and creating an extension of the means of investigating and applying the chemical powers of this wonderful and subtile agent.

98. The first point to be determined was, whether the same absolute quantity of ordinary electricity, sent through a galvano-

[1] Many of the spaces in this table originally left blank may now be filled. Thus with *thermo-electricity,* Botto made magnets and obtained polar chemical decomposition: Antinori produced the spark; and if it has not been done before, Mr. Watkins has recently heated a wire in Harris's thermo-electrometer. In respect to *animal electricity,* Matteucci and Linari have obtained the spark from the torpedo, and I have recently procured it from the gymnotus: Dr. Davy has observed the heating power of the current from the torpedo. I have therefore filled up these spaces with crosses, in a different position to the others originally in the table. There remain but five spaces unmarked, two under *attraction* and *repulsion,* and three under *discharge by hot air;* and though these effects have^not yet been obtained, it is a necessary conclusion that they must be possible, since the *spark* corresponding to them has been procured. For when a discharge across cold air can occur, that intensity which is the only essential additional requisite for the other effects must be present.—December 13, 1838.

[2] In further illustration of this subject, see 590-608 in Part V.—December 1838.